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10/690,278	10/21/2003	Greg A. Peek	1000-0013	4559
7590 08/18/2008 The Law Offices of John C. Scott, LLC c/o PortfolioIP P.O. Box 52050 Minneapolis, MN 55402			EXAMINER ADDY, ANTHONY S	
			ART UNIT 2617	PAPER NUMBER
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/690,278

**Applicant(s)**

PEEK, GREG A.

**Examiner**

ANTHONY S. ADDY

**Art Unit**

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 June 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4, 8, 12, 13, 16-20, 22, 23 and 26-37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 8, 12, 13, 16-20, 22, 23 and 26-37 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on June 09, 2008 has been entered. **Claims 1-4, 8, 12-13, 16-20, 22-23 and 26-37** are pending in the present application.

### ***Response to Arguments***

2. Applicant's arguments with respect to **claims 1-4, 8, 12-13, 16-20, 22-23 and 26-37** have been considered but are moot in view of the new ground(s) of rejection. Arguments are directed to newly added limitations and the new ground(s) of rejection based on the newly added limitations follow below.
3. Additionally, Applicant's failure to adequately traverse the Examiner's taking of Official Notice in the last Office Action is taken as an admission of the fact noticed (*i.e., the very well known teaching of the IEEE 802.11a standard achieving a better throughput than the IEEE 802.11b,g standard and said IEEE 802.11b,g standard is a standard that achieves better range than said IEEE 802.11a standard*).

***Claim Objections***

4. **Claim 26** is objected to because of the following informalities:
- a) On line 4 of **claim 26**, replace "said wireless client device" with -- said first wireless client device --
- Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:
- The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
6. **Claims 18-20 and 33-35** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to claim 18, the claim is directed to both an apparatus (*e.g., an access point*) and instructions for using the apparatus, however it is unclear if the claim is directed to the instructions of using the apparatus nor the apparatus, and this makes the claim indefinite.

With respect to claims 19-20 and 33-35, they include the same issues explained above for parent claim 18, and are rejected for the same reasons as explained above.

Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

7. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
8. Claims 1, 2, 4, 8, 12-13 and 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Chuah et al., U.S. Publication Number 2005/0059396 A1 (hereinafter Chuah)**.

Regarding claim 1, Chuah discloses a method (see Fig. 8) comprising: at an access point (*e.g., access point 138*) in a wireless network that includes a first wireless transceiver (*e.g., 802.11(a) transceiver 420<sub>1</sub>*) following a first wireless standard (*i.e., the IEEE 802.11(a) standard*) and a second wireless transceiver (*e.g., 802.11(b) transceiver 420<sub>22</sub>*) following a second wireless standard (*i.e., the IEEE 802.11(b) standard*) to provide wireless network access for wireless client devices (*e.g., group of mobile hosts 150<sub>11</sub> through 150<sub>n</sub>*) (see p. 2 [0020], p. 3 [0034] and Fig. 4).

Chuah fails to explicitly teach a method comprising: determining whether a wireless client device having a low quality signal is sharing said first wireless transceiver with a wireless client device having a high quality signal; and when a wireless client device having a low quality signal is sharing said first wireless transceiver with a wireless client device having a high quality signal, moving said wireless client device having a low quality signal to said second wireless transceiver.

However, Chuah teaches load balancing may be provided in an instance where for example, wireless transceiver 420<sub>21</sub> is primarily being utilized in an access point 138 that includes a plurality of wireless transceivers 420, and in an effort to provide load

balancing to relieve wireless transceiver 420<sub>21</sub> from over usage which results in diminished bandwidth capacity for each user associated with the wireless transceiver 420<sub>21</sub>, one or more mobile hosts 150 sharing said wireless transceiver 420<sub>21</sub> may be moved to a secondary transceiver (*e.g.*, *wireless transceiver 420<sub>22</sub>*) in the same access point 138 to thereby relieve wireless transceiver 420<sub>21</sub> from over usage, thereby improving QOS at the access point 138 (see p. 6 [0065-0066] and p. 7 [0067] and Fig. 4). According to Chuah, the communications protocol of the system performs load balancing while the users are currently engaged in a session, in a seamless manner without interruption (see p. 8 [0085]).

It would therefore have been obvious to one of ordinary skill in the art at the time of the invention to modify Chuah to include a method of determining whether a wireless client device having a low quality signal is sharing said first wireless transceiver with a wireless client device having a high quality signal; and when a wireless client device having a low quality signal is sharing said first wireless transceiver with a wireless client device having a high quality signal, moving said wireless client device having a low quality signal to said second wireless transceiver, in order to relieve an overloaded wireless transceiver from over usage and improve bandwidth capacity for each user associated with one of a plurality of wireless transceivers of a common access point as taught by Chuah (see p. 6 [0064-0065] and p. 7 [0067]).

Regarding claim 2, the modification of Chuah teaches all the limitations of claim 1. In addition, Chuah discloses a method, wherein: determining includes estimating

current usage of transceivers of said access point that are available to service wireless client devices (see *Chuah*, p. 6 [0065-0066] and p. 7 [0067]).

Regarding claim 4, the modification of Chuah teaches all the limitations of claim

1. In addition, Chuah discloses a method, wherein: moving includes sending a command to said at least one wireless client device having a low quality signal instructing said wireless client device having a low quality signal to move to said second wireless transceiver (see *Chuah*, p. 6 [0064-0065] and p. 7 [0067]).

Regarding claim 8, the modification of Chuah teaches all the limitations of claim

1. In addition, Chuah discloses a method, wherein: moving said wireless client device having a low quality signal to said second wireless transceiver includes moving said wireless client device having a low quality signal to another frequency band (see *Chuah*, p. 3 [0035], p. 6 [0064-0065] and p. 7 [0067]).

Regarding claim 12, Chuah discloses an apparatus (see Fig. 4; *shows an access point 138*) comprising: a first wireless transceiver (e.g., *802.11(a) transceiver 420<sub>1</sub>*) configured in accordance with a first wireless standard (i.e., *the IEEE 802.11(a) standard*) to operate within a first channel (see p. 3 [0034-0035] and Fig. 4; *shows an 802.11(a) transceiver operating within a first channel*); a second wireless transceiver (e.g., *802.11(b) transceiver 420<sub>22</sub>*) configured in accordance with a second wireless standard (i.e., *the IEEE 802.11(b) standard*) to operate within a second channel (see p. 3 [0034-0035] and Fig. 4; *shows an 802.11(b) transceiver operating within a second channel*), wherein said second channel is different from said first channel (see p. 3 [0035]); and a controller (*processor 402 reads on a controller*) to move a first wireless

client device (*e.g., mobile host 150, which reads on a remote wireless client device*) from said first channel to said second channel (see p. 6 [0066], p. 7 [0067] and Figs 1 & 4; shows a mobile host 150 and a processor 402).

Chuah fails to explicitly teach said controller moves said first wireless client device from said first channel to said second channel when it is determined that said first wireless client device has a low quality signal and is sharing said first wireless transceiver with a second wireless client device that has a high quality signal.

However, Chuah teaches load balancing may be provided in an instance where for example, wireless transceiver 420<sub>21</sub> is primarily being utilized in an access point 138 that includes a plurality of wireless transceivers 420, and in an effort to provide load balancing to relieve wireless transceiver 420<sub>21</sub> from over usage which results in diminished bandwidth capacity for each user associated with the wireless transceiver 420<sub>21</sub>, one or more mobile hosts 150 sharing said wireless transceiver 420<sub>21</sub> may be moved to a secondary transceiver (*e.g., wireless transceiver 420<sub>22</sub>*) in the same access point 138 to thereby relieve wireless transceiver 420<sub>21</sub> from over usage, thereby improving QOS at the access point 138 (see p. 6 [0065-0066] and p. 7 [0067] and Fig. 4). In addition, Chuah teaches the plurality of wireless transceivers operate in different frequency channels (see p. 3 [0035]), thus showing that the one or more mobile hosts 150 are moved from different frequency operating channels when the one or mobile hosts 150 are handed-off between the different wireless transceivers within the same access point.



It would therefore have been obvious to one of ordinary skill in the art at the time of the invention to modify Chuah to include an apparatus, wherein said controller moves said first wireless client device from said first channel to said second channel when it is determined that said first wireless client device has a low quality signal and is sharing said first wireless transceiver with a second wireless client device that has a high quality signal, in order to relieve an overloaded wireless transceiver from over usage and improve bandwidth capacity for each user associated with one of a plurality of wireless transceivers of a common access point as taught by Chuah (see p. 6 [0064-0065] and p. 7 [0067]).

Regarding claim 13, Chuah as modified teaches all the limitations of claim 12. In addition, Chuah discloses an apparatus, further comprising: at least one other wireless transceiver to operate within at least one other channel, wherein said at least one other channel is different from said first and second channels (see *Chuah*, p. 3 [0034-0035] and Fig. 4).

Regarding claim 16, the modification of Chuah teaches all the limitations of claim 12. In addition, Chuah discloses an apparatus, wherein: said controller moves said first wireless client device from said first channel to said second channel by sending a command to said first wireless client device instructing said wireless client device to move to said second channel (see *Chuah*, p. 6 [0064-0065] and p. 7 [0067]).

Regarding claim 17, the modification of Chuah teaches all the limitations of claim 12. In addition, Chuah discloses an apparatus, wherein: said apparatus includes a wireless access point (see *Chuah*, p. 3 [0032] and Fig. 4; shows an access point 138).

Regarding claim 18, Chuah discloses an article comprising a computer readable storage medium having instructions stored thereon that, when executed by a computing platform (see abstract and p. 3 [0032]), result in: at an access point (*e.g.*, *access point 138*) in a wireless network (100) that includes a first wireless transceiver (*e.g.*, *802.11(a) transceiver 420<sub>1</sub>*) following a first wireless standard (*i.e.*, *the IEEE 802.11(a) standard*) and a second wireless transceiver (*e.g.*, *802.11(b) transceiver 420<sub>22</sub>*) following a second wireless standard (*i.e.*, *the IEEE 802.11(b) standard*) to provide wireless network access for wireless client devices (*e.g.*, *group of mobile hosts 150<sub>11</sub> through 150<sub>nr</sub>*) (see p. 2 [0020], p. 3 [0034] and Fig. 4).

However, Chuah fails to explicitly teach determining whether a wireless client device having a low quality signal is sharing said first wireless transceiver with a wireless client device having a high quality signal; and when a wireless client device having a low quality signal is sharing said first wireless transceiver with a wireless client device having a high quality signal, moving said wireless client device having a low quality signal to said second wireless transceiver.

However, Chuah further teaches load balancing may be provided in an instance where for example, wireless transceiver 420<sub>21</sub> is primarily being utilized in an access point 138 that includes a plurality of wireless transceivers 420, and in an effort to provide load balancing to relieve wireless transceiver 420<sub>21</sub> from over usage which results in diminished bandwidth capacity for each user associated with the wireless transceiver 420<sub>21</sub>, one or more mobile hosts 150 sharing said wireless transceiver 420<sub>21</sub> may be moved to a secondary transceiver (*e.g.*, *wireless transceiver 420<sub>22</sub>*) in the same

access point 138 to thereby relieve wireless transceiver 420<sub>21</sub> from over usage, thereby improving QOS at the access point 138 (see p. 6 [0065-0066] and p. 7 [0067] and Fig.

4). According to Chuah, the communications protocol of the system performs load balancing while the users are currently engaged in a session, in a seamless manner without interruption (see p. 8 [0085]).

It would therefore have been obvious to one of ordinary skill in the art at the time of the invention to modify Chuah to include the step of determining whether a wireless client device having a low quality signal is sharing said first wireless transceiver with a wireless client device having a high quality signal; and when a wireless client device having a low quality signal is sharing said first wireless transceiver with a wireless client device having a high quality signal, moving said wireless client device having a low quality signal to said second wireless transceiver, in order to relieve an overloaded wireless transceiver from over usage and improve bandwidth capacity for each user associated with one of a plurality of wireless transceivers of a common access point as taught by Chuah (see p. 6 [0064-0065] and p. 7 [0067]).

Regarding claim 19, the modification of Chuah teaches all the limitations of claim 18. In addition, Chuah discloses an article, wherein: determining includes estimating current usage of transceivers of said access point that are available to service wireless client devices (see *Chuah*, p. 6 [0065-0066] and p. 7 [0067]).

Regarding claim 20, the modification of Chuah teaches all the limitations of claim 18. In addition, Chuah discloses an article, wherein: moving includes sending a command to said wireless client device having a low quality signal instructing said

wireless client device having a low quality signal to move to said second wireless transceiver (see *Chuah*, p. 6 [0064-0065] and p. 7 [0067]).

9. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Chuah et al., U.S. Publication Number 2005/0059396 A1 (hereinafter Chuah)** as applied to claim 1 above, and further in view of **Ganz et al., U.S. Patent Number 6,049,549 (hereinafter Ganz)**.

Regarding claim 3, the modification of Chuah teaches all the limitations of claim 1, but fails to explicitly teach, wherein: determining includes analyzing data rates requested by wireless client devices associated with said first wireless transceiver.

In an analogous field of endeavor, Ganz teaches a resource manager allocates bandwidth to sessions by taking into account the data rate requested and the achievable throughput of wireless stations in a wireless local area network (WLAN) environment in order to allow a requested data rate to be achieved by the wireless stations and thereby increase the total throughput of the system and provide proper quality of service support for real-time applications (see abstract, col. 2, lines 16-25 and Fig. 1).

It would therefore have been obvious to one of ordinary skill in the art at the time of the invention to modify Chuah with the teachings of Ganz to include a method, wherein: determining includes analyzing data rates requested by wireless client devices associated with said first wireless transceiver, in order to allow a requested data rate to be achieved by the wireless stations and to thereby increase the total throughput of the

system and provide a proper quality of service support for real-time applications as taught by Ganz (see abstract and col. 2, lines 16-39).

10. Claims 29, 32 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Chuah et al., U.S. Publication Number 2005/0059396 A1 (hereinafter Chuah)** as applied to claims 1, 12 and 18 above, and further in view of **Esteves et al., U.S. Patent Number 6,687,510 (hereinafter Esteves)**.

Regarding claims 29, 32 and 35, Chuah teaches all the limitations of claims 1, 12 and 18. Chuah fails to explicitly teach a method and apparatus, wherein: the signal quality of a wireless client device is determined based upon a data rate requested by the wireless client device. However, determining the signal quality of a wireless client device based upon a data rate requested by the wireless client device is very well known in the art as taught for example by Esteves.

In an analogous field of endeavor, Esteves teaches a base station determining the signal quality of a remote station based upon a data rate requested by the remote station (see col. 9, lines 47-52).

It would therefore have been obvious to one of ordinary skill in the art at the time of the invention to modify Chuah with the teachings of Esteves to include a method and apparatus, wherein: the signal quality of a wireless client device is determined based upon a data rate requested by the wireless client device, in order to determine how much power to allocate to a reverse link channel for communicating information from a

remote station to a base station as taught by Esteves (see col. 3, line 65 through col. 4, line 3).

11. Claims 27, 28, 30, 31, 33 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Chuah et al., U.S. Publication Number 2005/0059396 A1 (hereinafter Chuah)** as applied to claims 1, 12 and 18 above, and further in view of **Well Known Prior Art – Official Notice.**

Regarding claims 27, 28, 30, 31, 33 and 34, Chuah teaches all the limitations of claims 1, 12 and 18. Chuah further teaches a method and apparatus, wherein: said first wireless standard is IEEE 802.11a (see p. 3 [0034]) and said second wireless standard is IEEE 802.11b (see p. 3 [0034-0035]). Chuah further teaches the access point may support IEEE 802.11 (g) or more communication protocols (see p. 3 [0034] and Fig. 4), but fails to explicitly teach wherein: said first wireless standard is a standard that achieves better throughput than said second wireless standard and said second wireless standard is a standard that achieves better range than said first wireless standard; and said second wireless standard is IEEE 802.11b,g.

However, the examiner takes Official Notice that it is very well known in the art that a first wireless standard such as IEEE 802.11a is a standard that achieves better throughput than a second wireless standard such as IEEE 802.11b,g and said second wireless standard is a standard that achieves better range than said first wireless standard. Furthermore, one of ordinary skill in the art further recognizes that it would have been obvious to include a standard such as IEEE 802.11b,g, since Chuah teaches

the access point may support IEEE 802.11 (a), (b) and (g) or more communication protocols (see p. 3 [0034] and Fig. 4).

It would therefore have been obvious to one of ordinary skill in the art at the time of the invention to modify Chuah, wherein: said first wireless standard is a standard that achieves better throughput than said second wireless standard and said second wireless standard is a standard that achieves better range than said first wireless standard; and said second wireless standard is IEEE 802.11b,g, in order to allow a mobile device to roam, while providing continuous uninterrupted services as taught by Chuah (see p. 8 [0077 7 0085]).

12. Claims 22, 23 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Chuah et al., U.S. Publication Number 2005/0059396 A1 (hereinafter Chuah)** and further in view of **Fox et al., U.S. Patent Number 6,879,807 (hereinafter Fox)**.

Regarding claim 22, Chuah teaches a system comprising: a first wireless transceiver (e.g., *802.11(a) transceiver 420<sub>1</sub>*), coupled to a first antenna (e.g., *antenna 422<sub>1</sub>*) and configured in accordance with a first wireless standard (i.e., *the IEEE 802.11(a) standard*) to operate within a first channel (see p. 3 [0034-0035] and Fig. 4; shows an *802.11(a) transceiver operating within a first channel*); a second wireless transceiver (e.g., *802.11(b) transceiver 420<sub>22</sub>*), coupled to a second antenna (e.g., *antenna 422<sub>3</sub>*) and configured in accordance with a second wireless standard (i.e., *the IEEE 802.11(b) standard*) to operate within a second channel (see p. 3 [0034-0035] and Fig. 4; shows an *802.11(b) transceiver operating within a second channel*), wherein

said second channel is different from said first channel (see p. 3 [0035]); and a controller (*i.e.*, *processor 402 reads on a controller*) to move a first wireless client device (*e.g.*, *mobile host 150, which reads on a first wireless client device*) from said first channel to said second channel (see p. 6 [0066], p. 7 [0067] and Figs 1 & 4; shows a mobile host 150 and a processor 402).

Chuah fails to explicitly teach said controller moves said first wireless client device from said first channel to said second channel when it is determined that said first wireless client device has a low quality signal and is sharing said first wireless transceiver with a second wireless client device that has a high quality signal.

However, Chuah teaches load balancing may be provided in an instance where for example, wireless transceiver 420<sub>21</sub> is primarily being utilized in an access point 138 that includes a plurality of wireless transceivers 420, and in an effort to provide load balancing to relieve wireless transceiver 420<sub>21</sub> from over usage which results in diminished bandwidth capacity for each user associated with the wireless transceiver 420<sub>21</sub>, one or more mobile hosts 150 sharing said wireless transceiver 420<sub>21</sub> may be moved to a secondary transceiver (*e.g.*, *wireless transceiver 420<sub>22</sub>*) in the same access point 138 to thereby relieve wireless transceiver 420<sub>21</sub> from over usage, thereby improving QOS at the access point 138 (see p. 6 [0065-0066] and p. 7 [0067] and Fig. 4). In addition, Chuah teaches the plurality of wireless transceivers operate in different frequency channels (see p. 3 [0035]), thus showing that the one or more mobile hosts 150 are moved from different frequency operating channels when the one or mobile



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hosts 150 are handed-off between the different wireless transceivers within the same access point.

It would therefore have been obvious to one of ordinary skill in the art at the time of the invention to modify Chuah to include a system, wherein said controller moves said first wireless client device from said first channel to said second channel when it is determined that said first wireless client device has a low quality signal and is sharing said first wireless transceiver with a second wireless client device that has a high quality signal, in order to relieve an overloaded wireless transceiver from over usage and improve bandwidth capacity for each user associated with one of a plurality of wireless transceivers of a common access point as taught by Chuah (see p. 6 [0064-0065] and p. 7 [0067]).

Furthermore, Chuah as modified above fails to explicitly teach said first and second antennas are dipole antennas coupled to said first wireless transceiver and said second wireless transceiver. However a dipole antenna coupled to a wireless transceiver in an access point is very well known in the art as taught for example by Fox.

In an analogous field of endeavor, Fox teaches a wireless access unit comprising a dipole antenna electrically coupled to a wireless transceiver (see col. 3, lines 20-28 & 57-66 and Figs. 1 & 2).

It would therefore have been obvious to one of ordinary skill in the art at the time of the invention to modify Chuah with the teachings of Fox to include a system, comprising: at least one first dipole antenna coupled to said first wireless transceiver;

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and at least one second dipole antenna coupled to said second wireless transceiver, in order to improve antenna reception and performance, which provides increased speed and bandwidth for a computing device, as well as an increased reliability in a wireless inter-connection to a remote network as taught by Fox (see col. 1, lines 33-35 and col. 5, lines 23-28).

Regarding claim 23, Chuah in view of Fox teaches all the limitations of claim 22. Chuah in view of Fox further teaches a system, further comprising: at least one other wireless transceiver to operate within at least one other channel, wherein said at least one other channel is different from said first and second channels (see *Chuah*, p. 3 [0034-0035] and Fig. 4).

Regarding claim 26, Chuah in view of Fox teaches all the limitations of claim 22. Chuah in view of Fox further teaches a system, wherein: said controller moves said first wireless client device from said first channel to said second channel by sending a command to said first wireless client device instructing said wireless client device to move to said second channel (see *Chuah*, p. 6 [0064-0065] and p. 7 [0067]).

13. Claims 36-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Chuah et al., U.S. Publication Number 2005/0059396 A1 (hereinafter Chuah)** and further in view of **Fox et al., U.S. Patent Number 6,879,807 (hereinafter Fox)** as applied to claim 22 above, and further in view of **Well Known Prior Art – Official Notice**.

Regarding claims 36 and 37, Chuah teaches all the limitations of claim 22. Chuah further teaches a method and apparatus, wherein: said first wireless standard is IEEE 802.11a (see p. 3 [0034]) and said second wireless standard is IEEE 802.11b (see p. 3 [0034-0035]). Chuah further teaches the access point may support IEEE 802.11 (g) or more communication protocols (see p. 3 [0034] and Fig. 4), but fails to explicitly teach wherein: said first wireless standard is a standard that achieves better throughput than said second wireless standard and said second wireless standard is a standard that achieves better range than said first wireless standard; and said second wireless standard is IEEE 802.11b,g.

However, the examiner takes Official Notice that it is very well known in the art that a first wireless standard such as IEEE 802.11a is a standard that achieves better throughput than a second wireless standard such as IEEE 802.11b,g and said second wireless standard is a standard that achieves better range than said first wireless standard. Furthermore, one of ordinary skill in the art further recognizes that it would have been obvious to include a standard such as IEEE 802.11b,g, since Chuah teaches the access point may support IEEE 802.11 (a), (b) and (g) or more communication protocols (see p. 3 [0034] and Fig. 4).

It would therefore have been obvious to one of ordinary skill in the art at the time of the invention to modify Chuah and Fox, wherein: said first wireless standard is a standard that achieves better throughput than said second wireless standard and said second wireless standard is a standard that achieves better range than said first wireless standard; and said second wireless standard is IEEE 802.11b,g, in order to

allow a mobile device to roam, while providing continuous uninterrupted services as taught by Chuah (see p. 8 [0077 & 0085]).

### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

14. **Claims 18-20 and 33-35** are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter as follows:

Claim 18 is directed to neither a "manufacture (*i.e., an article comprising computer readable storage medium having instructions stored thereon*)" nor a "machine (*i.e., an access point*)," but rather embraces or overlaps two different statutory classes of invention set forth in 35 U.S.C. 101 which is drafted so as to set forth the statutory classes of invention in the alternative only, hence claim 18 above is directed to non-statutory subject matter.

Regarding claim 19-20 and 33-35, it includes the same issues explained above for parent claim 18, and is therefore rejected based on its dependency on claim 18.

### ***Conclusion***

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kalish, U.S. Publication Number 2005/0025102 A1 discloses wireless local area network processing device having multiple parallel radios.

Haddad, U.S. Publication Number 2003/0231610 A1 discloses providing quality of service within a wireless network.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANTHONY S. ADDY whose telephone number is (571)272-7795. The examiner can normally be reached on Mon-Thur 8:00am-6:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duc M. Nguyen can be reached on 571-272-7503. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Anthony S Addy/  
Examiner, Art Unit 2617

/Duc Nguyen/

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Supervisory Patent Examiner, Art Unit 2617